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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,395	01/30/2004	Roy S. Bondurant	0050.2066-000	3796
21005 7590 04/09/2007 HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			EXAMINER PASCAL, LESLIE C	
			ART UNIT	PAPER NUMBER
			2613	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/09/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/768,395		BONDURANT ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Leslie Pascal		2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5-6, 11, 13-16, 20, 21, 23 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Villenrotter et al (ref AU).

Villenrotter et al (ref AU) teaches a plurality of spatially separated detectors (figure 1, detectors in each telescope), each detector comprising a plurality of sensors (page 3, last paragraph, first sentence - detector array), an optical system (telescope) and a processor (FPA SIGNAL PROCESSING). In regard to claim 2, see page 19, third full paragraph. In regard to the pointing, see in figure 1 the real time tracking updates and drive correction and tip tilt mirror assembly. All are used to point the telescopes. In regard to claim 13, see page 2. in regard to claim 14, see page 5. in regard to claim 15, see page 1

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-10, 17-19, 22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villenrotter et al (ref AU).

Although Villenrotter does not specifically teach that he remotely moves his telescopes, it would have been obvious to move them remotely after processing the signals in order

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to point them accurately. In regard to claim 9, in that each telescope has its own processor, it would have been obvious to use each these in a LAN. In regard to claim 10, it is well known to put detector arrays on a monolithic substrate in order to have a compact device that operates in a similar manner. In regard to the delays and timing, see page 2. he teaches that algorithms are used to provide the optimum signal. It is well known to use algorithms to provide proper timing in order to provide signals that are synchronized especially if they are spaced apart and may have delays. In regard to claim 19, it is well known to use synchronizing signals and clocking signals in order to provide proper timing. In regard to claim 26, it would have been obvious to disregard signals that appear to have too much noise or if a detector appears to be defective to disregard the signals from it. In regard to claim 12, it would appear that the telescope

5. Claims 3-4, are rejected under 35 U.S.C. 103(a) as being unpatentable over Villenrotter et al (ref AU) in view of Patterson et al (6289104).

Although Villenrotter et al does not teach specifics about his detectors, he teaches that they are photon counting. In that APDs that operate in Geiger mode are well known and provide photon counting as is used by Villenrotter et al, it would have been obvious to use

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Villenrotter et al (ref AU) in view of Carlsen et al (6901220).

Villenrotter et al teach baffles (the length of the telescope. Although he does not specifically teach that they are solar baffles, see column 6, lines 32-35 of Carlson et al.

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It would have been obvious to use solar baffles as taught by Carlson et al in order to keep solar light from causing noise in the system of Villenrotter.

7. There was a typographical error in the previous office action. The reference was designated as reference AT when it should have been reference AU. See figure 1 of Villenrotter et al. He teaches a telescope array.(see top left of the figure where he labels it a telescope array) and an array of detectors (first line in the paragraph above figure 1). He says that EACH telescope is focused onto a detector array designated as the FPA. Each telescope has a FDA signal processor. Then there is an array signal processing means for processing the signals from each telescope.. in regard to the argument that Patterson is not "nonlinear". The applicant does not teach a benefit to being non-linear. Further, see column 3, lines 63-67 of Augusto et al, which teaches that the Geiger mode is nonlinear.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Pascal whose telephone number is 571-272-3032. The examiner can normally be reached on Monday- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Leslie Pascal  
Primary Examiner  
Art Unit 2613